

Approach to an Affordable and Sustainable Space Transportation System

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ABSTRACT

This paper describes an approach and a general procedure for creating space transportation architectural concepts that are at once affordable and sustainable. Previous papers by the authors and other members of the Space Propulsion Synergy Team (SPST) focused on a functional system breakdown structure for an architecture and definition of high-payoff design techniques with a technology integration strategy. This paper follows up by using a structured process that derives architectural solutions focused on achieving life cycle affordability and sustainability. Further, the paper includes an example concept that integrates key design techniques discussed in previous papers.

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